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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/830,073	04/23/2004	Gordon Paul Kurtenbach	1500.1054C	7674
21171	7590	09/25/2007		
STAAS & HALSEY LLP SUITE 700 1201 NEW YORK AVENUE, N.W. WASHINGTON, DC 20005			EXAMINER NGUYEN, JENNIFER T	
			ART UNIT	PAPER NUMBER
			2629	
			MAIL DATE	DELIVERY MODE
			09/25/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/830,073	<b>Applicant(s)</b> AUTODESK, INC.	
	<b>Examiner</b> Jennifer T. Nguyen	<b>Art Unit</b> 2629	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 29 August 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,4-11,13,15-17,19,21,23 and 25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,4-11,13,15-17,19,21,23 and 25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>6-21-04</u> | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

1. Applicant's election without traverse of Species B (claims 1, 4-11, 13, 15-17, 19, 21, 23, and 25) in the reply filed on 8/29/07 is acknowledged.

***Double Patenting***

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

3. Claims 1, 4-11, 13, 15-17, 19, 21, 23, and 25 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 15-16 of U.S. Patent No. 6,753,847. Although the conflicting claims are not identical, they are not patentably distinct from each other because:

10/830073 (claims 1 and 9)	Patent No.: US 6,753,847 (claim 15)
a three-dimensional (3D) volumetric display output configuration having a display content	a three-dimensional (3D) volumetric display

an input configuration coupled to the volumetric display output configuration and comprising a passive sensor allowing a user to affect the display content through the passive sensor.	a sensing grid surface of a three-dimensional (3D) volumetric display using a stylus; and affecting the 3D content of the display responsive to the interaction, the cursor and user selection input.
the input configuration further comprises one of an input volume adjacent to the display, an input volume surrounding the display, a digitizing surface covering a surface of the display, a digitizing surface offset from the surface of the display, and an intermediary device used with the display.	producing a 3D cursor within the display responsive to the interacting using a sensed non-planar position of the stylus and a sensed stylus pointing vector;

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1, 4, 6-11, 13, 15-17, 19, 21, 23, and 25 are rejected under 35 U.S.C. 102(e) as being anticipated by Kent (Patent No.: US 7,061,475).

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Regarding claims 1, 19, Kent teaches a system (figs. 19 a and 19b), comprising:  
a three-dimensional (3D) volumetric display output configuration having a display content; and  
an input configuration coupled to the volumetric display output configuration and comprising a passive sensor (1908) allowing a user to affect the display content through the passive sensor (col. 77, line 62 to col. 78, line 29).

Regarding claim 4, Kent teaches the sensor comprises a touch sensitive surface (col. 25, lines 1-10).

Regarding claim 6, Kent teaches the output configuration comprises one of a dome, a cylinder, a cubical box and an arbitrary shape (col. 77, line 62 to col. 78, line 29).

Regarding claims 7 and 8, Kent teaches the user produces inputs comprising one or directly with a hand, with a surface touching device and with an intermediary device (col. 13, lines 63-67).

Regarding claims 9 and 10, Kent teaches the input configuration further comprises one of an input volume adjacent to the display, wherein the intermediary device comprises one of a stylus (col. 13, lines 63-67).

Regarding claim 11, Kent teaches the input configuration comprises a non-planar 2D input space mapped to the 3D volumetric display (col. 13, lines 63-67).

Regarding claim 13, Kent teaches the input configuration is non-spatial (col. 13, lines 63-67).

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Regarding claims 15-17, Kent teaches the input configuration and output configuration define a spatial correspondence between an input space and an output space (col. 13, lines 63-67).

Regarding claim 21, Kent teaches a system (figs. 19 a and 19b), comprising:

a three-dimensional (3D) volumetric display output configuration having a display content; and

an input configuration coupled to the volumetric display output configuration and allowing a user to affect the display content, said input configuration comprising a touch sensitive surface overlaid on said display (col. 77, line 62 to col. 78, line 29).

Regarding claim 23, Kent teaches a system (figs. 19 a and 19b), comprising:

a three-dimensional (3D) volumetric display output configuration having a display content; and

an input configuration coupled to the volumetric display output configuration and allowing a user to affect the display content, said input configuration comprising a surface motion system detecting motion on a surface of said display (col. 77, line 62 to col. 78, line 29).

Regarding claim 25, Kent teaches a system (figs. 19 a and 19b), comprising:

a three-dimensional (3D) volumetric display output configuration having a display content; and

an input configuration coupled to the volumetric display output configuration and allowing a user to affect the display content, said input configuration comprising an input device moving in three dimensions on a surface of said display (col. 13, lines 63-67, col. 77, line 62 to col. 78, line 29).

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kent (Patent No.: US 7,061,475) in view of Ely et al. (Patent No.: 6,667,740).

Regarding claim 5, Kent does not specifically teach the sensor comprises magnetic filed tracking system.

Ely teaches a touch sensor comprises magnetic filed tracking system (col. 13, lines 5-44). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the magnetic filed tracking system as taught by Kent in the system of Ely in order to provide a touch system with low cost and accurately control.

8. The prior art made of record and not relied upon is considered to pertinent applicant's disclosure: Patent No. US 6,900,779 and US 6,765,566.

***Conclusion***


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennifer T. Nguyen whose telephone number is 571-272-7696. The examiner can normally be reached on Mon-Fri: 9:00am-5:30pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard A. Hjerpe can be reached on 571-272-7691. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jennifer Nguyen  
9/17/07



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